

N100

Truck-mounted fire pump

 **rosenbauer**

Pump-system N100

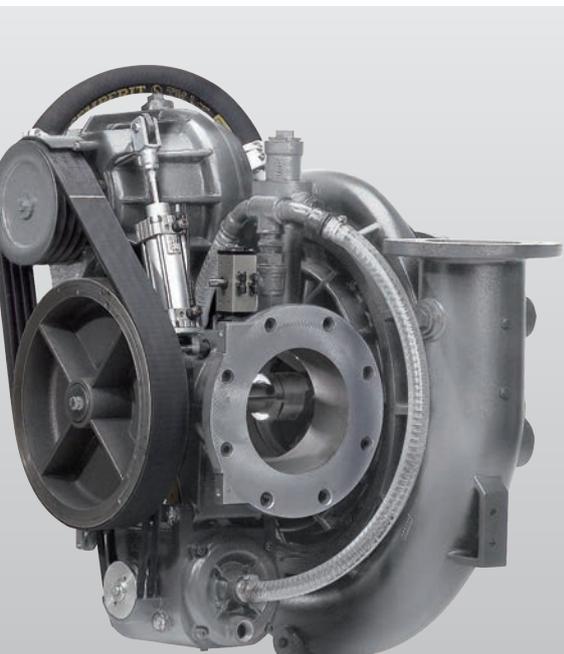
One pump – three applications

The N100 covers applications ranging from aircraft rescue, to industrial fire fighting vehicles through to stationary pumping systems for pressurize hydrant systems.

The well-thought out location of all components and the unique drive concept provide a small footprint, for the pump system which is unrivalled with respect to performance and functionality.

The N100 - the central unit - has three tasks

1. Pump water at high-performance levels
2. Support the priming pump, high pressure pump and the around-the-pump foam proportioning system
3. Central drive unit for all auxiliary devices



Benefits of the N100 pump

- High pump performance in normal and/or high pressure operations
- Maximum operating safety
- Low maintenance
- Low noise emission
- Freely combinable with
 - › High pressure pump H5
 - › Priming pump KAP6000
 - › Around the pump foam proportioning system FOAMATIC E
- Compact construction due to modular Design
- All accessories directly mounted on the pump
 - › No additional brackets or holders required
- Accessories directly driven from the pump shaft on the suction side
 - › Robust and easy to service
- T-type suction cover facilitates hose and pipe connections
 - › Accessories and pump suction cover can be removed without dismantling the pump

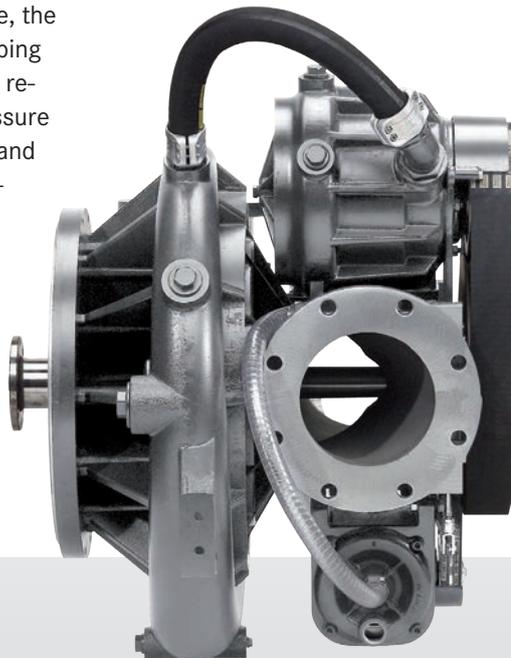
■ Normal pressure fire pump N100

The High Volume-pump

The N100 is the most powerful pump in the Rosenbauer range. Wherever you need a powerful attack, or continuous high-performance operations, the N100 should be the first choice.

The single-stage N100 pump runs at a convincingly low speed of just 1750 RPM. Modern, low-emission diesel engines provide a perfect blend of low noise emission and low fuel consumption at this speed range.

Thanks to the spiral housing and water stripers edges in the volute, the N100 has an extremely flat pumping performance characteristic. This reduces the impact of sudden pressure changes – provoked by opening and closing water turrets, or similar – to a minimum.



Benefits of the N100

- High pumping performance
 - › 10.000 lpm at 10 bar
 - › 14.000 lpm at 10 bar with 5 bar inlet pressure
 - › 8.000 pm at 10 bar with 3 m suction height and suction strainer
- Low noise emission
 - › Due to engine and pump running in optimum speed range at 1750 RPM
- Low pressure due to optimized pump output characteristic
- Contamination resilient
 - › Wide-diameter impellers allows foreign bodies
- Low power consumption due to high efficiency
 - › Without high pressure pump: 220 kW
 - › With high pressure pump: 320 kW
- Low maintenance
 - › Mechanical shaft seals at suction and pressure side of the pump, maintenance free

■ High pressure pump H5

Normal- and high pressure without compromises

Adding the H5 pump to the N100 drastically increases the attack force of the pumping system. Full normal and high pressure performance is available at all times without compromise.

The unique drive system guarantees that the four-stage high pressure pump can be enabled as needed.

Benefits of the H5 high pressur pump

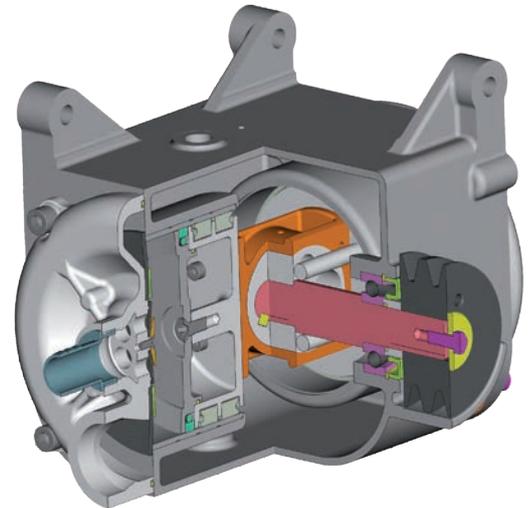
- Rated output 500 lpm at 40 bar
- Full normal- and high pressure pump
- Performance at the same time
- Driven by a belt directly from the pump shaft of the normal pressure fire pump N100
 - › Robust and safe operations - no clutch or tension roller
- Can be enabled or disabled as needed
 - › A pneumatically tensioned multiple v-belt guarantees full power transmission in any operating status

■ Double acting piston priming pump KAP600

High-performance priming for heavy duty applications

The KAP600 gives fire fighters a highly effective and extremely robust priming pump.

The unique drive system supports permanent stand by status of the priming pump, allowing fire fighters to start it as needed.



Benefits of the KAP600

- High performance priming with a displacement of 600 ccm
- Resilient to contaminated water supply
- Low maintenance due to oil bath lubrication
- Secure operations due to dual piston - failsafe
- Cylinder liners and eccentric shaft made of stainless steel, slide ring made of non-ferrous metal alloy
- 3 hydraulic seals per piston
- Extremely resilient, centrally located inlet and outlet valves made of synthetic material

■ N100 Gear Box

Driven by flexibility

In situations where the N100 cannot be driven directly by a cardan shaft or engine, an optional helical gear box is available.

The gear box can be delivered with two different gear ratios (0,81 or 0,67) for power-take-off rotation clockwise (fig.1) or counter-clockwise (fig.2). The drive unit is seated in a water-cooled oil bath for continuous operations.

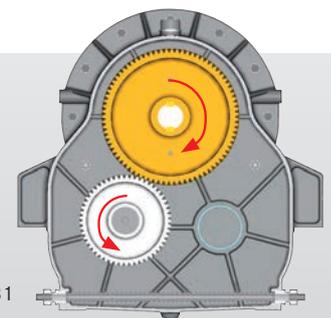


Fig. 1
gear ratio: 0,81

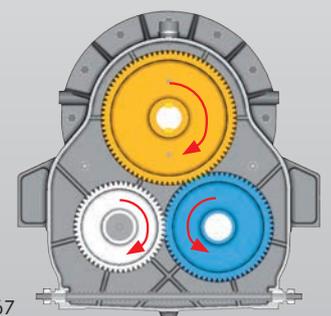
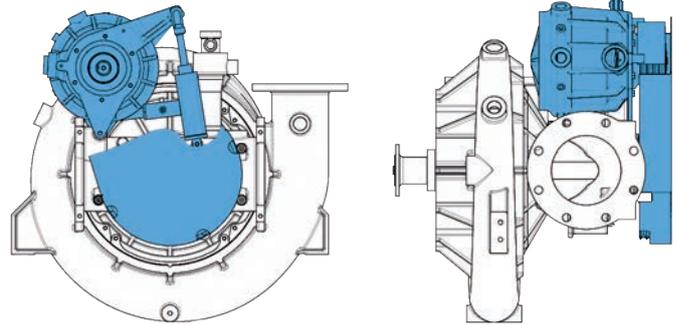
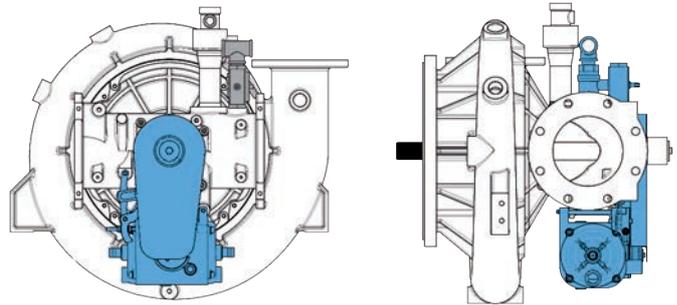


Fig. 2
gear ratio: 0,67

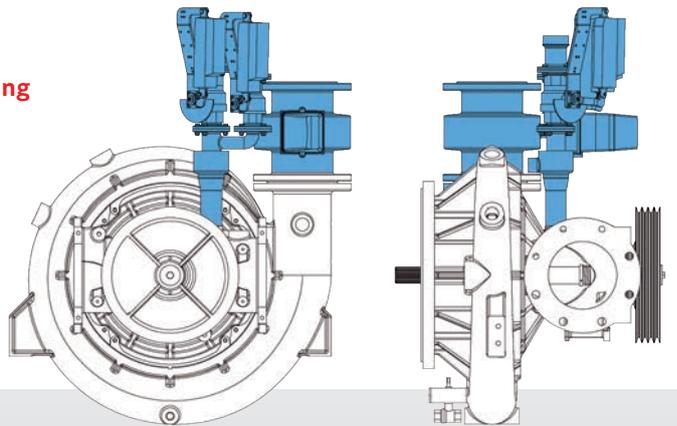
Arrangement
high pressure
pump H5



Arrangement
piston priming
pump KAP600



Arrangement
foam proportioning
system
FOAMATIC E



■ The N100 pump system

Flexibility by combination

Based on the N100 normal pressure fire pump, fire fighters can add from a range of options to support up to 8 different pumpingsystems. The convincing factor is the ability to mount accessories directly on, and drive them from the N100 pump shaft.

Normal pressure pump	Priming pump	Foam proportioning system	High pressure pump
N100	KAP600	FOAMATIC E	H5
X			
X	X		
X	X	X	
X		X	X
X			X
X	X		X
X		X	X

N100

Truck-mounted fire pump



Pump Performance

Pump	Flow	Pressure	Drive	Suction height
N100	8.500 lpm	10 bar	175 kW	3 m
N100	10.000 lpm	10 bar	220 kW	Tank suction
H5	500 lpm	40 bar	135 kW	
H5	250 lpm	40 bar	105 kW	

Pump	Flow	Pressure	Drive	Suction height
N100	2.250 USgpm	150 psi	238 HP	10 ft
N100	2.640 USgpm	150 psi	300 HP	Tank suction
H5	130 USgpm	600 psi	185 HP	
H5	65 USgpm	600 psi	145 HP	

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